

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of classifying multivalued data stored in ~~data storage means~~ a memory of a computer system in a descending hierarchy, each datum being associated with particular initial values of attributes that are common to the data, the method comprising recursive steps of subdividing data sets, ~~and wherein, during each step of subdividing a set, a set:~~

first, a calculator of the computer calculates discrete values ~~are calculated~~ for the attributes from the particular initial values of the data attributes of said set, ~~and wherein~~

then, the calculator subdivides said set ~~is subdivided~~ into subsets as a function of a homogeneity criterion calculated on the basis of the discrete values for the attributes of said ~~set, set, and~~

the memory is updated by adding the subsets in the descending hierarchy.

2. (Currently Amended) ~~A method~~ The method of classifying data in a descending hierarchy according to claim 1, wherein during the step of calculation of discrete values for the attributes, each initial attribute is transformed into a discrete attribute.

3. (Currently Amended) ~~A method~~ The method of classifying data in a descending hierarchy according to claim 1, wherein, during each step of subdividing a set, binary attribute values are calculated from the particular initial attribute values of the data of said set, and wherein said set is subdivided into subsets as a function of the binary values.

4. (Currently Amended) ~~A method~~ The method of classifying data in a descending hierarchy according to claim 3, wherein, during the step of calculating the binary attribute values for the attributes, for each attribute that is numerical, ~~the median~~ a median value of the particular initial values of said attribute in the data of said set is estimated and in

that ~~the value~~ a value "true" is given to ~~the binary~~ a binary attribute corresponding to said attribute for a datum of said set if the particular initial value of the numerical attribute of said datum is less than or equal to the ~~estimated median value~~, value that have been estimated, else ~~the value~~ a value "false" is given thereto.

5. (Currently Amended) A method of classifying multivalued data stored in a memory of a computer system in a descending hierarchy, each datum being associated with particular initial values of attributes that are common to the data, the method comprising recursive steps of subdividing data sets, wherein, during each step of subdividing a set:
first, a calculator of the computer calculates discrete values for the attributes from the particular initial values of the data attributes of said set,
then, the calculator subdivides said set into subsets as a function of a homogeneity criterion calculated on the basis of the discrete values for the attributes of said set, and the memory is updated by adding the subsets in the descending hierarchy, wherein:
during each step of subdividing a set, binary attribute values are calculated from the particular initial attribute values of the data of said set, and said set is subdivided into subsets as a function of the binary values,
during the step of calculating the binary attribute values for the attributes, for each attribute that is numerical, a median value of the particular initial values of said attribute in the data of said set is estimated and in that a value "true" is given to a binary attribute corresponding to said attribute for a datum of said set if the particular initial value of the numerical attribute of said datum is less than or equal to the median value that have been estimated, else a value "false" is given thereto,

~~A method of classifying data in a descending hierarchy according to claim 4,~~
and wherein the estimated median value of a numerical ~~each numerical~~ attribute is obtained as follows:

extracting extreme values from the set of values taken by the numerical attribute for the data of said set;

calculating the mean of ~~the~~ remaining values; and

allocating the value of said mean as the ~~estimated-median-value~~. value that have been estimated.

6. (Currently Amended) A method of classifying multivalued data stored in a memory of a computer system in a descending hierarchy, each datum being associated with particular initial values of attributes that are common to the data, the method comprising recursive steps of subdividing data sets, wherein, during each step of subdividing a set:

first, a calculator of the computer calculates discrete values for the attributes from the particular initial values of the data attributes of said set,

then, the calculator subdivides said set into subsets as a function of a homogeneity criterion calculated on the basis of the discrete values for the attributes of said set, and

the memory is updated by adding the subsets in the descending hierarchy, wherein:

during each step of subdividing a set, binary attribute values are calculated from the particular initial attribute values of the data of said set, and said set is subdivided into subsets as a function of the binary values. ~~A method of classifying data in a descending hierarchy according to claim 3, wherein;~~

during the step of calculating the binary attribute values for the attributes, for each attribute that is symbolic, ~~the modal~~ a modal value of the particular initial values of said attribute in the data of said set is estimated, and ~~wherein the a~~ a value "true" is allocated to the ~~binary~~ a binary attribute corresponding to said attribute for a datum of said set is estimated if

the initial particular value of the symbolic attribute of said datum is equal to the estimated modal value, value that have been estimated, else ~~the value a value~~ "false" is given thereto.

7. (Currently Amended) ~~A method~~ The method of classifying data in a descending hierarchy according to claim 6, wherein the modal value of a symbolic attribute is estimated as follows:

the symbolic values taken by the data of said set for the symbolic attribute are read;

while reading the symbolic values, the first m different symbolic values taken by the data of said set for the symbolic attribute are stored, where m is ~~predetermined number~~; any predetermined number, arbitrarily chosen before reading the symbolic values;

the symbolic ~~value attribute~~ attribute that appears most frequently is retained, amongst said m first different symbolic values; and

the retained symbolic ~~value attribute~~ attribute is used as ~~the estimate of the~~ an estimated modal value.

8. (Currently Amended) ~~A classification~~ The classification method according to claim 1, wherein said set is subdivided on the basis of the discrete values of the ~~most discriminating attribute, i.e. the~~ attribute for which a homogeneity criterion for all of the discrete values of the other attributes in the ~~resulting subsets is optimized~~; optimized, this attribute being called "most discriminating attribute."

9. (Currently Amended) ~~A classification~~ The classification method according to claim 8, wherein, for any attribute, the homogeneity criterion is an estimate of ~~the expectation~~ an expectation of the conditional a conditional probabilities ~~for correctly to correctly~~ predicting ~~the other other~~ attributes, given knowledge of this attribute.

10. (Currently Amended) ~~A classification method according to claim 8~~; A method of classifying multivalued data stored in a memory of a computer system in a descending

hierarchy, each datum being associated with particular initial values of attributes that are common to the data, the method comprising recursive steps of subdividing data sets, wherein, during each step of subdividing a set:

first, a calculator of the computer calculates discrete values for the attributes from the particular initial values of the data attributes of said set,

then, the calculator subdivides said set into subsets as a function of a homogeneity criterion calculated on the basis of the discrete values for the attributes of said set, and

the memory is updated by adding the subsets in the descending hierarchy,
wherein said set is subdivided on the basis of the discrete values of the attribute for which a homogeneity criterion for all of the discrete values of the other attributes in the subsets is optimized, this attribute being called "most discriminating attribute" and wherein, for certain attributes marked a priori as being "taboo" ~~by means of basing on~~ a particular parameter, the attribute considered as being the most discriminating is the attribute that is not marked as being taboo for which the homogeneity criterion for all of the discrete values of the other attributes in the ~~resulting~~ subsets is optimized.